

WHAT IS CLAIMED IS:

1. An eosinophil eotaxin receptor, free from  
receptor-associated proteins.

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2. The eosinophil eotaxin receptor of Claim 1 which is  
human.

3. An isolated eosinophil eotaxin receptor.

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4. The eosinophil eotaxin receptor of Claim 3 which is  
human.

5. The receptor of Claim 2 which comprises a full  
length receptor or which comprises the amino acid sequence (SEQ ID  
NO:1).

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6. The receptor of Claim 4 which comprises a full  
length receptor or which comprises the amino acid sequence (SEQ ID  
NO:1).

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8. A functional equivalent of the eosinophil eotaxin  
receptor of Claim 1.

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9. A nucleic acid which encodes an eosinophil eotaxin  
receptor or a functional equivalent, said nucleic acid being free  
from associated nucleic acids.

10. A nucleic acid according to Claim 9 which encodes a  
human eosinophil eotaxin receptor, or a functional equivalent.

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11. The nucleic acid of Claim 10 which is a DNA.

12. The nucleic acid of Claim 11 which comprises the nucleotide sequence (SEQ ID NO:2).

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13. The nucleic acid of Claim 12 which further comprises the nucleotide sequence (SEQ ID NO:3).

10 14. The nucleic acid of Claim 13 which further comprises the nucleotide sequence (SEQ ID NO:4).

15 15. A vector comprising a nucleic acid which encodes an eosinophil eotaxin receptor receptor, or a functional equivalent.

16. A vector according to Claim 15 which is selected from the group consisting of: plasmids, and modified viruses, yeast artificial chromosomes, bacteriophages and cosmids or transposable elements

20 17. A vector according to Claim 16 wherein the nucleic acid encodes human eosinophil eotaxin receptor receptor or a functional equivalent.

25 18. A host cell comprising a vector according to Claim 17.

19. The host cell of Claim 18 wherein the nucleic acid encodes human eosinophil eotaxin receptor receptor, or a functional equivalent.

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20. The host cell of Claim 19 which is from the AML14.3D10 cell line.

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21. A nucleic acid encoding an eosinophil eotaxin receptor clone that belongs to the  $\beta$ -chemokine receptor family and that hybridizes with a nucleotide which a human eosinophil eotaxin receptor under reduced stringency of hybridization.

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22. A method to determine the presence of a compound which binds to an eosinophil eotaxin receptor comprising:

(a) introducing a nucleic acid which encodes an eosinophil eotaxin receptor into a cell under conditions so that eosinophil eotaxin receptor is expressed;

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(b) introducing a detector molecule or a nucleic acid encoding a detector molecule into the cell, wherein the detector molecule is directly or indirectly responsive to a eosinophil eotaxin-ligand binding event;

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(c) contacting the cell with a compound suspected of binding to the eosinophil eotaxin receptor; and

(d) determining whether the compound binds to the eosinophil eotaxin receptor by monitoring the detector molecule.

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23. The method of Claim 22 wherein the eosinophil eotaxin receptor is human.

24. The method of Claim 22 wherein the nucleic acid which encodes an eosinophil eotaxin receptor comprises the nucleotide sequence (SEQ ID NO:2).

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25. The method of Claim 22 wherein the result of step (d) is compared to that obtained using a known ligand of the eosinophil eotaxin receptor.

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26. The method of Claim 25 wherein the known ligand of the eosinophil eotaxin receptor is eotaxin.

28. The method of Claim 25 wherein the known ligand  
5 of the eosinophil eotaxin receptor is MCP-3.

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32. A ligand identified by the method of Claim 23.

20 34. A ligand identified by the method of Claim 25.

35. A ligand identified by the method of Claim 30.